

Appendix A

Modified Murashige and Skoog Media (1962).

Essential element	Concentration in stock solution (mg/l)	Concentration in medium (mg/l)
<u>1. Macroelement</u>		
CaCl ₂ .2H ₂ O	4400	440
NH ₄ NO ₃	16500	1650
KNO ₃	19000	1900
KH ₂ PO ₄	1700	170
MgSO ₄ .7H ₂	3700	370
<u>2. Microelement</u>		
KI	8.3	0.83
CoCl ₂ .6H ₂ O	0.25	0.025
H ₃ BO ₃	62.0	6.2
Na ₂ MoO ₄	2.5	0.25
MnSO ₄ .H ₂ O	223.0	22.3
CuSO ₄ .H ₂ O	0.25	0.025
ZnSO ₄ .7H ₂ O	86.0	8.6
<u>3. Iron source</u>		
FeSO ₄ .7H ₂ O	278.5	27.85
Na ₂ EDTA	372.5	37.25
<u>4. Organic supplement</u>		
Glycine	20	2.0
Nicotinic acid	5	0.5
Pyridoxine- HCl	5	0.5
Thiamine- HCl	1	0.1
Myoinositol	1000	100
<u>5. Carbon source</u>		
Sucrose		30g/l

Appendix B

SPSS data of shoot number responses on shoot induction media for *Sansevieria trifasiata* var. *Hahnii*.

MEDIA COMBINATION	Mean	N	Std. Deviation	Std. Error of Mean
1.00 BAP, 0.00 NAA	.17	6	.408	.167
1.00 BAP, 0.25 NAA	1.00	6	.632	.258
2.00 BAP, 0.50 NAA	1.50	6	.548	.224
2.00 BAP, 1.00 NAA	1.83	6	.753	.307
3.00 BAP, 1.00 NAA	1.83	6	.753	.307
4.00 BAP, 1.00 NAA	2.50	6	.837	.342
5.00 BAP, 2.00 NAA	2.00	6	.632	.258
Total	1.55	42	.942	.145

Appendix C

ANOVA of shoot numbers on different media combinations for *Sansevieria trifasiata* var. *Hahnii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	20.905	6	3.484	7.867	.000
Within Groups	15.500	35	.443		
Total	36.405	41			

Appendix D

Table 4.1.1(e): SPSS data of shoot number responses on shoot induction media for *Sansevieria trifasciata* var. *Laurentii*.

MEDIA COMBINATION	Mean	N	Std. Deviation	Std. Error of Mean
1.00 BAP, 0.00 NAA	.00	6	.000	.000
1.00 BAP, 0.25 NAA	1.00	6	.894	.365
2.00 BAP, 0.50 NAA	1.67	6	.516	.211
2.00 BAP, 1.00 NAA	1.83	6	.408	.167
3.00 BAP, 1.00 NAA	1.83	6	.408	.167
4.00 BAP, 1.00 NAA	2.00	6	.632	.258
5.00 BAP, 2.00 NAA	1.67	6	.516	.211
Total	1.43	42	.831	.128

Appendix E

ANOVA of shoot numbers on different media combinations for *Sansevieria trifasciata* var. *Laurentii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.952	6	2.992	10.134	.000
Within Groups	10.333	35	.295		
Total	28.286	41			

Appendix F

SPSS data of shoot height responses on shoot induction media for *Sansevieria trifasciata* var. *Hahnii*.

MEDIA COMBINATION	Mean	N	Std. Deviation	Std. Error of Mean
1.00 BAP, 0.00 NAA	.0167	6	.04082	.01667
1.00 BAP, 0.25 NAA	.1500	6	.08367	.03416
2.00 BAP, 0.50 NAA	.5333	6	.10328	.04216
2.00 BAP, 1.00 NAA	.5000	6	.20000	.08165
3.00 BAP, 1.00 NAA	.6333	6	.12111	.04944
4.00 BAP, 1.00 NAA	.7167	6	.17224	.07032
5.00 BAP, 2.00 NAA	.7833	6	.07528	.03073
Total	.4762	42	.29368	.04532

Appendix G

ANOVA of shoot heights on different media combinations for *Sansevieria trifasciata* var. *Hahnii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.990	6	.498	31.900	.000
Within Groups	.547	35	.016		
Total	3.536	41			

Appendix H

SPSS data of shoot height responses on shoot induction media for *Sansevieria trifasciata* var. *Laurentii*.

MEDIA COMBINATION	Mean	N	Std. Deviation	Std. Error of Mean
1.00 BAP, 0.00 NAA	.0000	6	.00000	.00000
1.00 BAP, 0.25 NAA	.3833	6	.21370	.08724
2.00 BAP, 0.50 NAA	.5000	6	.14142	.05774
2.00 BAP, 1.00 NAA	1.0667	6	.29439	.12019
3.00 BAP, 1.00 NAA	1.7667	6	.08165	.03333
4.00 BAP, 1.00 NAA	2.0833	6	.09832	.04014
5.00 BAP, 2.00 NAA	2.2000	6	.18974	.07746
Total	1.1429	42	.84367	.13018

Appendix I

ANOVA of shoot heights on different media combinations for *Sansevieria trifasciata* var. *Laurentii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.160	6	4.693	160.518	.000
Within Groups	1.023	35	.029		
Total	29.183	41			

Appendix J

SPSS data of root number responses on root induction media according to hormone concentration and difference cultural conditions for *Sansevieria trifasciata* var. *Hahnii*.

MEDIA TREATMENT	Mean	N	Std. Deviation	Std. Error of Mean
MSO DARK	1.33	6	.816	.333
1 IAA DARK	1.67	6	.516	.211
2 IAA DARK	2.33	6	.516	.211
MSO LIGHT	1.33	6	.516	.211
1 IAA LIGHT	3.00	6	1.095	.447
2 IAA LIGHT	1.67	6	.516	.211
Total	1.89	36	.887	.148

Appendix K

ANOVA of root numbers on difference cultural conditions for *Sansevieria trifasciata* var. *Hahnii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.444	1	.444	.557	.460
Within Groups	27.111	34	.797		
Total	27.556	35			

Appendix L

ANOVA of root numbers on difference hormone concentrations for *Sansevieria trifasciata* var. *Hahnii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.889	5	2.578	5.273	.001
Within Groups	14.667	30	.489		
Total	27.556	35			

Appendix M

SPSS data of root number responses on root induction media according to hormone concentration and difference cultural conditions for *Sansevieria trifasciata* var. *Laurentii*.

MEDIA TREATMENT	Mean	N	Std. Deviation	Std. Error of Mean
MSO DARK	1.17	6	.408	.167
1 IAA DARK	1.33	6	.516	.211
2 IAA DARK	2.17	6	.753	.307
MSO LIGHT	1.50	6	.548	.224
1 IAA LIGHT	2.83	6	.408	.167
2 IAA LIGHT	1.67	6	.516	.211
Total	1.78	36	.760	.127

Appendix N

ANOVA of root numbers on difference cultural conditions for *Sansevieria trifasciata* var. *Laurentii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.778	1	1.778	3.277	.079
Within Groups	18.444	34	.542		
Total	20.222	35			

Appendix O

ANOVA of root numbers on difference hormone concentrations for *Sansevieria trifasciata* var. *Laurentii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.556	5	2.311	8.000	.000
Within Groups	8.667	30	.289		
Total	20.222	35			

Appendix P

SPSS data of root length responses on root induction media according to hormone concentration and difference cultural conditions for *Sansevieria trifasciata* var. *Hahnii*.

MEDIA TREATMENT	Mean	N	Std. Deviation	Std. Error of Mean
MSO DARK	2.1833	6	.52313	.21357
1 IAA DARK	1.1333	6	.76594	.31269
2 IAA DARK	1.5167	6	.29944	.12225
MSO LIGHT	1.9833	6	.62102	.25353
1 IAA LIGHT	1.6000	6	.51769	.21134
2 IAA LIGHT	3.7333	6	.76855	.31376
Total	2.0250	36	1.01485	.16914

Appendix Q

ANOVA of root lengths on difference cultural conditions for *Sansevieria trifasciata* var. *Hahnii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.167	1	6.167	7.017	.012
Within Groups	29.881	34	.879		
Total	36.048	35			

Appendix R

ANOVA of root lengths on difference hormone concentrations for *Sansevieria trifasciata* var. *Hahnii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.076	5	5.015	13.713	.000
Within Groups	10.972	30	.366		
Total	36.047	35			

Appendix S

SPSS data of root length responses on root induction media according to hormone concentration and difference cultural conditions for *Sansevieria trifasciata* var. *Laurentii*.

MEDIA TREATMENT	Mean	N	Std. Deviation	Std. Error of Mean
MSO DARK	1.9167	6	.37639	.15366
1 IAA DARK	1.5833	6	.34303	.14004
2 IAA DARK	3.7500	6	1.12916	.46098
MSO LIGHT	4.0667	6	.85479	.34897
1 IAA LIGHT	3.3167	6	.45350	.18514
2 IAA LIGHT	7.0833	6	1.35561	.55342
Total	3.6194	36	1.98319	.33053

Appendix T

ANOVA of root lengths on different cultural conditions for *Sansevieria trifasciata* var. *Laurentii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	52.080	1	52.080	20.692	.000
Within Groups	85.576	34	2.517		
Total	137.656	35			

Appendix U

ANOVA of root lengths on different hormone concentrations for *Sansevieria trifasciata* var. *Laurentii*.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	116.115	5	23.223	32.341	.000
Within Groups	21.542	30	.718		
Total	137.656	35			